Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1 (cancelled)

2. (Currently amended) A method according to claim 7, ~~wherein~~ further comprising adding a phosphoramidite group ~~added~~ to the 3' position of said 2' modified nucleoside.

3. (Currently amended) A method according to claim 2, ~~wherein~~ further comprising incorporating said phosphoramidite 2' modified nucleoside ~~is incorporated~~ into a growing nucleic acid.

4. (Currently amended) A method according to claim 7 wherein said anhydronucleoside ~~is~~ has a naturally occurring ~~nucleoside~~ base.

5. (Cancelled)

6. (Previously presented) A method according to claim 7 wherein said ~~activating~~ activation agent is carbonyldiimidazole.

7. (Currently amended) A method for making a 2' modified nucleoside having a covalently attached electron transfer moiety, said method comprising:

a) ~~adding~~ contacting a[[n]] 2,2' anhydro-nucleoside and an electron transfer moiety having a primary amine in the presence of an activation agent to form an activated anhydro-nucleoside;

b) ~~treating~~ contacting said activated anydronucleoside with a cyclization agent to form a cyclized intermediate; and

c) ~~treating~~ contacting said cyclized intermediate with a base to form said 2' modified nucleoside.

Claims 8-9 (cancelled).

10. (Currently amended) A method for making a [[2']] modified nucleoside selected from the group consisting of 2' and 3'modified nucleosides, said modified nucleoside having a covalently

~~comprising at least one covalently~~ attached polydentate ligand comprising a transition metal ion, wherein said polydentate ligand comprises at least two coordination atoms for said metal ion ~~that chelates a transition metal~~, said method comprising:

a) ~~adding~~ contacting:

i) an anhydro[[-]]nucleoside selected from the group consisting of 2,2' and 2,3-anhydronucleosides; and

ii) ~~at least one~~ said polydentate ligand comprising a primary amine;

in the presence of an activation agent to form an activated anhydro[[-]]nucleoside;

b) ~~treating~~ contacting said activated anydronucleoside with a cyclization agent to form a cyclized intermediate;

c) ~~treating~~ contacting said cyclized intermediate with a base to form said 2' or 3' modified nucleoside; and

d) adding a transition metal ion.

Claims 11-15 (cancelled)

16. (Previously presented) A method according to claim 7, wherein said electron transfer moiety is ferrocene.

17. (Currently amended) A method according to claim 10, wherein said transition metal is selected from the group consisting of ruthenium, rhenium, osmium, platinum, cobalt, ~~and~~ iron, dysprosium, europium, and terbium.

18. (Previously presented) A method according to claim 10, wherein a donor atom of said polydentate ligand is selected from the group consisting of nitrogen and oxygen.

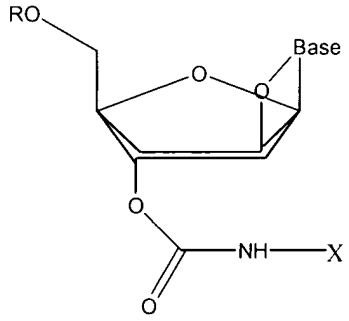
19. (Currently amended) A method according to claim 10, wherein said ~~polydentate ligand is~~ transition metal ion is chelated by said polydentate ligand comprising a primary amine and pyridine.

20. (Currently amended) A method according to claim 10, wherein said ~~polydentate ligand~~ transition metal ion is chelated by said polydentate ligand comprising a primary amine and bipyridine.

21. (Currently amended) A method according to claim 10, wherein said ~~polydentate ligand is~~ transition metal ion is chelated by said polydentate ligand comprising a primary amine and phenanthroline.

22. (New) A method for making 2'-modified nucleosides comprising:
a) contacting a nucleoside and a NH_2-X moiety with an activation agent, to form an intermediate compound having formula (I):

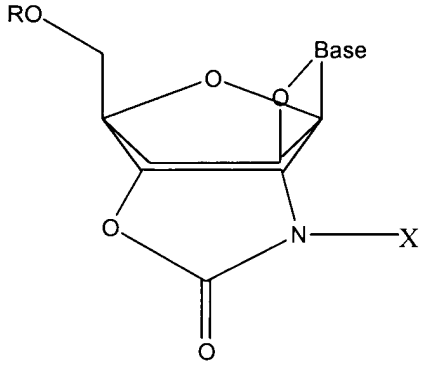
(I)



wherein
base is a pyrimidine or a purine;
R is selected from the group consisting of hydrogen, a protecting group, a triphosphate, and 2-cyanoethyl N,N-diisopropylchlorophosphoramidite; and,
X is a metallocene;

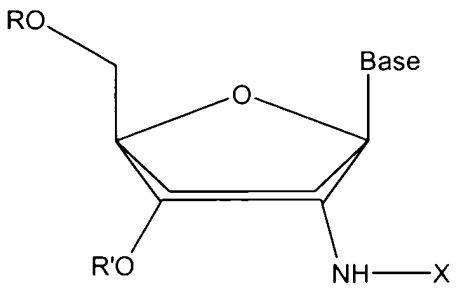
b) contacting said intermediate compound with a weak base to form a cyclized intermediate compound having formula (II):

(II)



and,
c) isolating a 2'-modified nucleoside having formula (III):

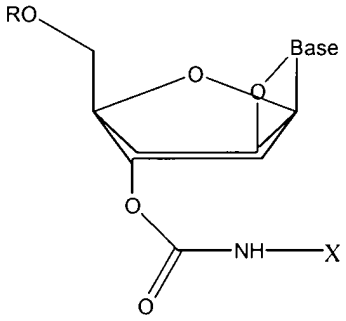
(III)



wherein R' is selected from the group consisting of hydrogen, a protecting group, and 2-cyanoethyl N,N-diisopropylchlorophosphoramidite.

23. (New) A method for making 2'-modified nucleosides comprising:
a) contacting a nucleoside and a NH_2-X with an activation agent, to form an intermediate compound having formula (I):

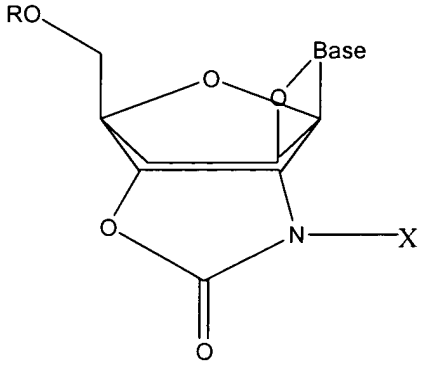
(I)



wherein
base is a pyrimidine or a purine;
R is selected from the group consisting of hydrogen, a protecting group, a triphosphate, and 2-cyanoethyl N,N-diisopropylchlorophosphoramidite; and,
-NH-X is a polydentate ligand;

b) contacting said intermediate compound with a weak base to form a cyclized intermediate compound having formula (II):

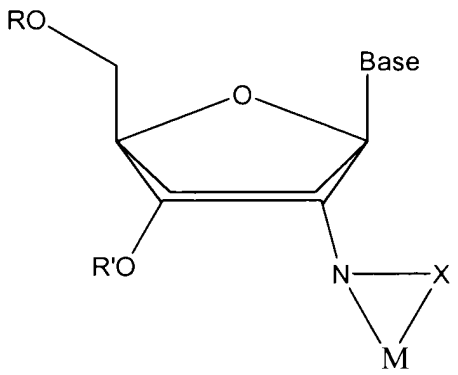
(II)



c) adding a transition metal ion; and,

d) isolating a 2'-modified nucleoside having formula (III):

(III)



wherein R' is selected from the group consisting of hydrogen, a protecting group, and 2-cyanoethyl N,N-diisopropylchlorophosphoramidite; and M is a transition metal ion selected from the group consisting of ruthenium, rhenium, osmium, platinum, cobalt, iron, europium, dysprosium, and terbium.

24. A method according to Claim 22, wherein X is ferrocene.

25. A method according to Claim 22 or 23 wherein said base is selected from the group consisting of a pyrimidine connected to X at the 2-position and a purine connected to X at the 3-position.

26. (New) A method according to Claim 22 or 23, wherein said activation agent is 1,1'-carbonyldiimidazole.

27. (New) A method according to Claim 22 or 23, wherein said weak base is 1,8-diazabicyclo-undec-7-ene (DBU).

28. (New) A method according to Claim 22 or 23, wherein R is a protecting group and R' is 2-cyanoethyl N,N-diisopropylchlorophosphoramidite.

29. (New) A method according to Claim 21, wherein said protecting group is 4',4-dimethoxytrityl (DMT).